TEXTRON Fastening Systems

Avdel® Blind Fastening & Automation Systems

Instruction Manual

Genesis® G2 model

Hydro-Pneumatic Power Tool

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Warranty

Textron Fastening Systems installation tools carry a 12 month warranty against defects caused by faulty materials or workmanship, the warranty period commencing from the date of delivery confirmed by invoice or delivery note.

The warranty applies to the user/purchaser when sold through an authorised outlet, and only when used for the intended purpose. The warranty is invalidated if the installation tool is not serviced, maintained and operated according to the instructions contained in the Instruction and Service Manuals.

In the event of a defect or failure, and at its sole discretion, Textron Fastening Systems undertakes only to repair or replace faulty components.

Textron Fastening Systems policy is one of continuous product development and improvement and we reserve the right to change the specification of any product without prior notice.

Safety Rules

This instruction manual must be read with particular attention to the following safety rules, by any person installing, operating, or servicing this tool.

1 Do not use outside the design intent.

2 Do not use equipment with this tool/machine other than that recommended and supplied by Textron Fastening Systems.

3 Any modification undertaken by the customer to the tool/machine, nose assemblies, accessories or any equipment supplied by Textron Fastening Systems or their representatives, shall be the customer's entire responsibility. Textron Fastening Systems will be pleased to advise upon any proposed modification.

4 The tool/machine must be maintained in a safe working condition at all times and examined at regular intervals for damage and function by trained competent personnel. Any dismantling procedure shall be undertaken only by personnel trained in Textron Fastening Systems procedures. Do not dismantle this tool/machine without prior reference to the maintenance instructions. Please contact Textron Fastening Systems with your training requirements.

5 The tool/machine shall at all times be operated in accordance with relevant Health and Safety legislation. In the U.K. the "Health and Safety at Work etc. Act 1974" applies. Any question regarding the correct operation of the tool/machine and operator safety should be directed to Textron Fastening Systems.

6 The precautions to be observed when using this tool/machine must be explained by the customer to all operators.

7 Always disconnect the airline from the tool/machine inlet before attempting to adjust, fit or remove a nose assembly.

8 Do not operate a tool/machine that is directed towards any person(s) or the operator.

9 Always adopt a firm footing or a stable position before operating the tool/machine.

10 Ensure that vent holes do not become blocked or covered.

11 The operating pressure shall not exceed 7 bar.

12 Do not operate the tool if it is not fitted with a complete nose assembly or swivel head unless specifically instructed otherwise.

13 Care shall be taken to ensure that spent stems are not allowed to create a hazard.

14 If the tool is fitted with a stem collector,it must be emptied when half full.

15 If the G2 tool is fitted with a stem deflector, it should be rotated until the aperture is facing way from the operator and other person(s) working in the vicinity.

16 When using the tool, the wearing of safety glasses is required both by the operator and others in the vicinity to protect against fastener ejection, should a fastener be placed 'in air'. We recommend wearing gloves if there are sharp edges or corners on the application.

17 Take care to avoid entanglement of loose clothes, ties, long hair, cleaning rags etc. in the moving parts of the tool which should be kept dry and clean for best possible grip.

18 When carrying the tool from place to place keep hands away from the trigger/lever to avoid inadvertent start up.

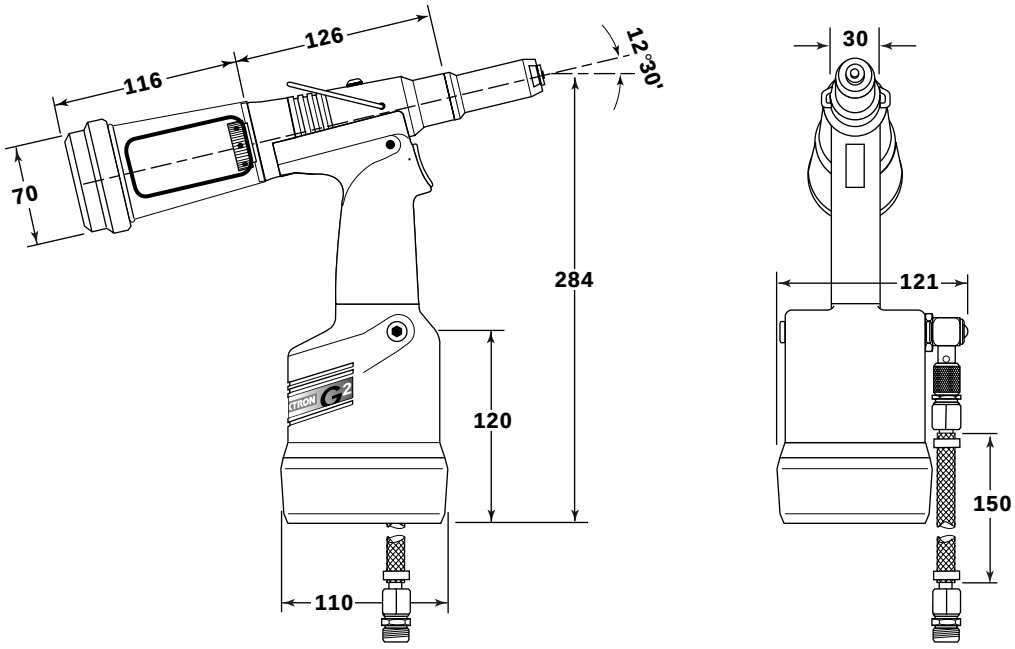
19 Excessive contact with hydraulic fluid oil should be avoided. To minimize the possibility of rashes, care should be taken to wash thoroughly.

Specifications

Tool Specification

Air Pressure	Minimum - Maximum	5-7 bar
Free Air Volume Required	@ 5.5 bar	2.1 litres
Stroke	Minimum	17 mm
Pull Force	@ 5.5 bar	9.34 kN
Cycle Time	Approximately	0.9 seconds
Noise Level		75 dB(A)
Weight	Without nose equipment	1.35 kg
Vibration	Less than	2.5 m/s^2

Tool Dimensions



Dimensions in millimetres

Intent of Use

Range of Fasteners

G2 is a hydro-pneumatic tool designed to place Avdel® breakstem fasteners at high speed making it ideal for batch or flow-line assembly in a wide variety of applications throughout all industries. It can place all fasteners listed opposite.

The tool features an adjustable vacuum system for fastener retention and trouble free collection of the spent stems regardless of tool orientation. See the 'Operating Procedure' on page 7 for adjustment instructions.

A complete tool, except the 71210-00039, is made up of three separate elements which will be supplied individually. See diagram below.

If you wish to place most of the fasteners in the table opposite, you can order the 71210-00039 complete tool comprising of:

- 71210-02000 base tool
- 71210-15000 nose assembly
- Nose tips 71210-05002, 71210-16070 and 07381-04701, two screwed into the base cover. Fit nose tip as indicated page 9 or 11.

You can order the above three nose tips and nose assembly as a nose assembly kit part number 71210-15100.

- **For some fasteners the base tool and nose assembly and nose tip must be ordered separately.**

NOSE EQUIPMENT MUST BE FITTED AS DESCRIBED ON PAGE 9.

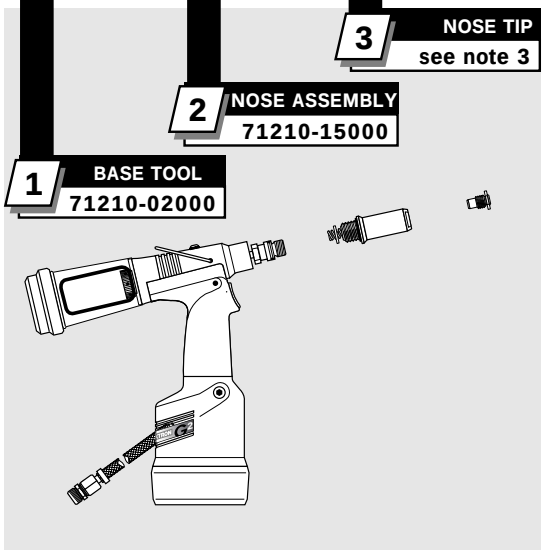
FASTENER NAME	FASTENER SIZE (MM / IN)									
	3	3.2	4.0	4.3	4.8	5	5.2	6	6.5	7
	–	1/8	5/32	–	3/16	–	–	–	–	–
AVEX®	●	●	●		●					
STAVEX®		●	●		●					
AVINOX®		●	●		●					
AVIBULB®		●	●		●					
ETR							●			
BULBEX®			●		●					
T-LOK®				●	●					
AVDEL® SR		●	●		●					
MONOBOLT®					●					
INTERLOCK®					●					
TLR®					●					
AVDEL®		●	●		●					
MBC		●	●		●					
MBC/LC		●	●		●					
AVSEAL®			●			●		●	●	●

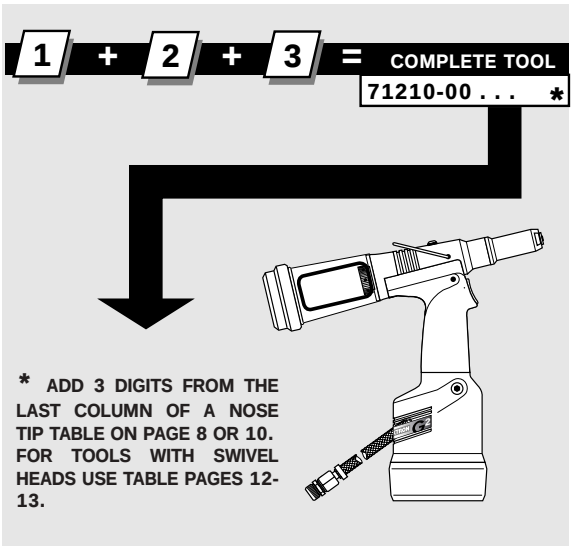
Part Numbering

1 The part number of the base tool remains the same whichever nose assembly, or nose tip is fitted. See the General Assembly pages 22-23. If a swivel head is fitted, the same base tool must be adapted. See details page 13.

2 This single nose assembly will allow placing of non-aerospace fasteners by simply selecting the appropriate nose tip from the range of type 1 nose tips. Other nose assemblies are available for applications with restricted access, for aerospace and special fasteners. See tables pages 8 & 10. A nose assembly can be substituted by a swivel head (see pages 12-15). In this case the nose tip is part of the swivel head.

3 The nose tip part number relates to a specific fastener. If access to the application is restricted, some extended nose tips are available. See page 10 for selection table.




1 + 2 + 3 = COMPLETE TOOL
71210-00 . . . *
* ADD 3 DIGITS FROM THE LAST COLUMN OF A NOSE TIP TABLE ON PAGE 8 OR 10. FOR TOOLS WITH SWIVEL HEADS USE TABLE PAGES 12-13.

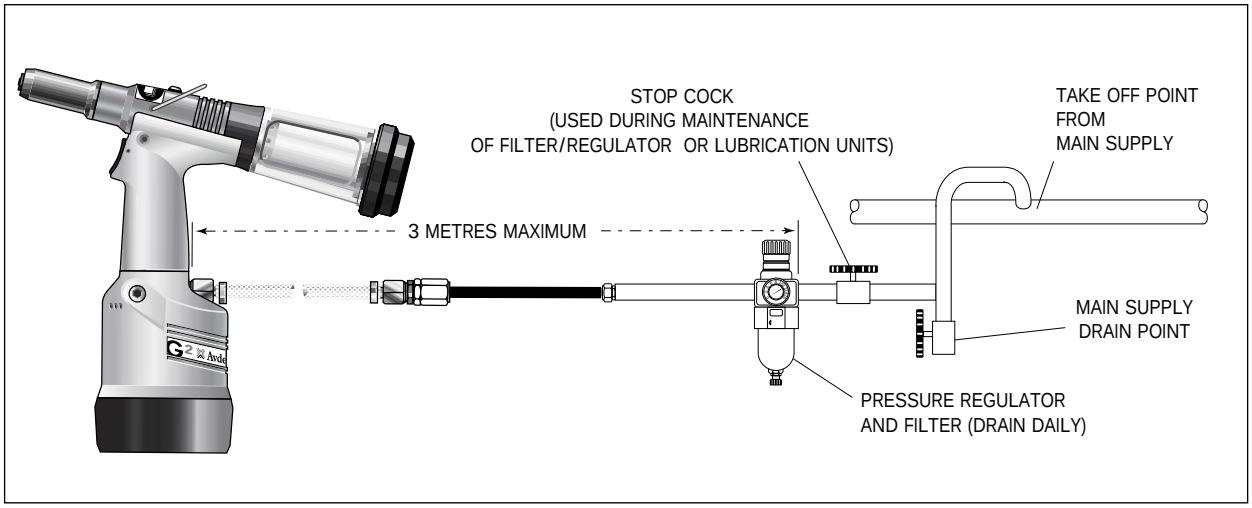
Putting into Service

Air Supply

All tools are operated with compressed air at an optimum pressure of 5.5 bar. We recommend the use of pressure regulators and filtering systems on the main air supply. These should be fitted within 3 metres of the tool (see diagram below) to ensure maximum tool life and minimum tool maintenance.

Air supply hoses should have a minimum working effective pressure rating of 150% of the maximum pressure produced in the system or 10 bar, whichever is the highest. Air hoses should be oil resistant, have an abrasion resistant exterior and should be armoured where operating conditions may result in hoses being damaged. All air hoses MUST have a minimum bore diameter of 6.4 millimetres or 1/4 inch.

Read servicing daily details page 16.



Operating Procedure

- Ensure that either the correct nose assembly or swivel head suitable for the fastener is fitted (see pages 8-10 and 12-15).
- Connect the tool to the air supply.
- Insert the fastener stem into the nose of the tool. If using a nose assembly, the fastener should remain held in by the vacuum system. If not, adjust the vacuum extraction rotary valve **60**.
- If using a swivel head, the vacuum extraction is disabled but the jaws themselves will grip the fastener.
- Bring the tool with the fastener to the application so that the protruding fastener enters squarely the hole of the application.
- Fully actuate the trigger. The tool cycle will broach the fastener and with standard nose assemblies the broken stem will be projected to the rear of the tool .

Adjusting the Vacuum Extraction

- Using a screwdriver, turn rotary valve **60** until the air flow at the rear of the tool ceases.
- With the nose of the tool pointing downwards, insert a fastener into the nose and hold it into position.
- Turn the rotary valve either way until there is sufficient suction to retain the fastener.

Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Nose Assemblies

Fitting Instructions

I M P O R T A N T

The air supply must be disconnected when fitting or removing nose assemblies.

Item numbers in bold refer to nose assembly components in all 3 nose tip tables.

- Lightly coat jaws **4** with Moly lithium grease*.
- Drop jaws **4** into jaw housing **3**.
- Insert jaw spreader **5** into jaw housing **3**.
- Locate buffer **6** on jaw spreader **5**.
- Locate spring **7** onto jaw spreader **5**.
- Fit locking ring **8** onto the jaw spreader housing of the tool.
- Holding tool pointing down, screw the assembled jaw housing onto the jaw spreader housing and tighten with spanner.
- Screw the nose tip into nose casing **1** and tighten with spanner*.
- Place nose casing **1** over jaw housing **3** and screw onto the tool, tightening with spanner*.

Servicing Instructions

Nose assemblies should be serviced at weekly intervals. You should hold some stock of all internal components of the nose assembly and nose tips as they will need regular replacement.

- Remove the nose equipment using the reverse procedure to the 'Fitting instructions'.
- Any worn or damaged part should be replaced.
- Clean and check wear on jaws.
- Ensure that the jaw spreader is not distorted.
- Check spring **7** is not distorted.
- Assemble according to fitting instructions above.

* Item included in the G2 service kit. For complete list see page 18.

Nose Assemblies

Nose Tips

I M P O R T A N T

Nose assemblies do NOT include nose tips. Nose tips must be ordered separately.

A tool (except part number 71210-00039) must always be fitted with the correct nose assembly and nose tip for your fastener but if you wish to order a nose assembly or a nose tip separately, refer to the 'NOSE TIPS' tables below and page 10.

If your application presents no access restriction use a type '1' nose tip unless you are placing aerospace fasteners which requires a type '3' nose tip.

Dimensions 'A' and 'B' below will help you assess the suitability of a particular nose tip.

You should also check that the dimensions of the nose casing will not restrict access to your application. If access is restricted type '2' nose tips are available for some fasteners. Refer to the table page 10.

It is essential that nose assembly and nose tip are compatible with the fastener prior to operating the tool. If you have ordered a 71210-00039 complete tool, it is important that you check that the nose tip already fitted to the nose assembly is the correct one to place your fastener by sliding the fastener stem into the nose tip. No force should be required and play should be minimal. The two alternative nose tips are screwed into the base of the tool.

Swivel heads are available as an alternative to nose assemblies when further reach is required. See page 12-15 in the 'Accessories' section.

TYPE 1 *NOSE TIPS*

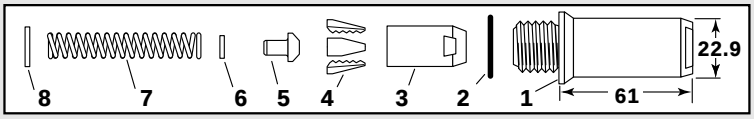
[1] *In inches then in millimetres.*
[2] *Head forming nose tips for use with countersunk heads ONLY.*
[3] *Long nose tip for deep placing.*
[4] *Dome head.*
[5] *Countersunk.*

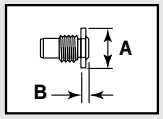
***** Complete tool part number 71210-00039 does not only include the 71210-15000 nose assembly below but also the following three nose tips: 71210-05002, 71210-16070 and 07381-04701 making up a nose assembly kit part number 71210-15100. Use the nose tip listed in the table.

NOSE ASSEMBLY
part nº 71210-15000
(+ 3 nose tips above = 71210-15100)

ITEM	DESCRIPTION	PART Nº
1	NOSE CASING	07340-00306
2	'O' RING	07003-00067
3	JAW HOUSING	07340-00304
4	JAWS	71210-15001
5	JAW SPREADER	07498-04502
6	BUFFER	71210-05001
7	SPRING	07500-00418
8	LOCKING RING	07340-00327

NAME	FASTENER Ø[1]		MATERIAL	NOSE TIP (mm) PART Nº	'A'	'B'	see below
AVEX®	1/8	3.2	Al Alloy	71210-05002	12.7	6.35	**... 0 3 9***
	1/8	3.2	Steel	71210-16070	12.7	3.3	**... 0 3 9***
	1/8	3.2	Al Alloy	07340-06401[2]	12.7	2.9	**... 0 0 3**
	–	**3**	Al Alloy	71210-05002	12.7	6.35	**... 0 3 9**
	5/32	4.0	Al Alloy	71210-16070	12.7	3.3	**... 0 3 9***
	5/32	4.0	Steel	07381-04701	12.7	2.8	**... 0 3 9***
	5/32	4.0	Al Alloy	07340-06501[2]	12.7	3.3	**... 0 0 9**
	3/16	4.8	Al Alloy	07381-04701	12.7	2.8	**... 0 3 9**
Large flange	3/16	4.8	Al Alloy	07340-04800	19.0	3.3	**... 0 1 6**
	3/16	4.8	Steel	07490-04401	12.7	3.3	**... 0 1 7**
	3/16	4.8	Al Alloy	07340-06601[2]	12.7	4.1	**... 0 1 5**
MONOBOLT®	3/16	4.8	Any	71210-16020	12.7	4.1	**... 2 0 0**
BULBEX®	5/32	4.0	Al Alloy	71210-16070	12.7	3.3	**... 0 3 9***
	3/16	4.8	Al Alloy	07381-04701	12.7	2.8	**... 0 3 9***
AVSEAL®	–	**4**	Al Alloy	71210-16001	12.7	4.9	**... 1 6 0**
	–	**4**	Al Alloy	71210-16006[3]	12.7	6.9	**... 1 8 0**
	–	**5**	Al Alloy	71210-16002	12.7	4.7	**... 1 6 1**
	–	**5**	Al Alloy	71210-16007[3]	12.7	6.9	**... 1 8 1**
	–	**6**	Al Alloy	71210-16003	12.7	5.3	**... 1 6 2**
	–	**6**	Al Alloy	71210-16008[3]	12.7	7.2	**... 1 8 2**
	–	**6.5**	Al Alloy	71210-16004	12.7	5.4	**... 1 6 3**
	–	**6.5**	Al Alloy	71210-16009[3]	12.7	7.3	**... 1 8 3**
	–	**7**	Al Alloy	71210-16005	12.7	5.4	**... 1 6 4**
	–	**7**	Al Alloy	71210-16010[3]	12.7	7.3	**... 1 8 4**
TLR®	3/16	4.8	Al Alloy	07605-00220	12.7	4.1	**... 1 4 0**
AVINOX® II	1/8	3.2	Stainless Steel	71210-16070	12.7	3.3	**... 0 3 9***
	5/32	4.0	Stainless Steel	07381-04701	12.7	2.8	**... 0 3 9***
	3/16	4.8	Stainless Steel	07498-01401	12.7	4.8	**... 0 8 2**
T-LOK®	–	**4.3**	Steel	07340-06201	12.7	3.3	**... 1 2 0**
	3/16	4.8	Steel	07340-06201	12.7	3.3	**... 1 2 0**
AVIBULB®	1/8	3.2	Steel	71210-16070	12.7	3.3	**... 0 3 9***
	5/32	4.0	Steel	07381-04701	12.7	2.8	**... 0 3 9***
	3/16	4.8	Steel	07498-01401	12.7	4.8	**... 0 8 2**
AVDEL® SR	1/8	3.2	Any	71210-05002	12.7	6.35	**... 0 3 9***
	5/32	4.0	Any	71210-16070	12.7	3.3	**... 0 3 9***
	3/16	4.8	Any	07348-07001[4]	12.7	5.7	**... 0 6 2**
	3/16	1.8	Any	71210-16050[5]	12.7	5.7	**... 0 6 4**
INTERLOCK®	3/16	4.8	Any	07381-04701	12.7	2.8	**... 0 3 9**
STAVEX®	1/8	3.2	Steel	71210-16070	12.7	3.3	**... 0 3 9**
	5/32	4.0	Steel	07381-04701	12.7	2.8	**... 0 3 9**
	3/16	4.8	Steel	07381-04701	12.7	2.8	**... 0 3 9**
Large flange Countersunk	3/16	4.8	Steel	07340-04800	19.0	3.3	**... 0 1 6**
	3/16	4.8	Steel	07381-04701	12.7	2.8	**... 0 3 9**
	1/8	3.2	Stainless Steel	71210-16070	12.7	3.3	**... 0 3 9**
	5/32	4.0	Stainless Steel	07381-04701	12.7	2.8	**... 0 3 9**
	3/16	4.8	Stainless Steel	07381-04701	12.7	2.8	**... 0 3 9**
Q™RIVET	1/8	3.2	Any	71210-05002	12.7	6.35	**... 0 3 9**
	5/32	4.0	Any	07340-06201	12.7	3.3	**... 1 2 0**
	3/16	4.8	Any	07340-06201	12.7	3.3	**... 1 2 0**





COMPLETE TOOL PART NUMBER :
precede with 71210-00.
*** See top left**

Nose Assemblies

Nose Tips

TYPE 2 *NOSE TIPS*

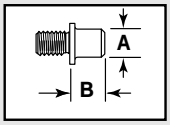
FASTENER NAME	Ø[1]		MATERIAL	NOSE TIP (mm) PART Nº	'A'	'B'	see below
AVEX®	1/8	3.2	Aluminium Alloy	07340-02805	9.5	12.95	... 0 0 2
	1/8	3.2	Steel	07340-02806	9.5	11.4	... 0 0 8
	5/32	4.0	Aluminium Alloy	07340-02806	9.5	11.4	... 0 0 8
	5/32	4.0	Steel	07340-02807	12.7	10.0	... 0 1 4
	3/16	4.8	Aluminium Alloy	07340-02807	12.7	10.0	... 0 1 4
	3/16	4.8	Steel	07340-07301	12.7	11.8	... 0 1 8
BULBEX®	5/32	4.0	Aluminium Alloy	07340-02806	9.5	11.4	... 0 0 8
	3/16	4.8	Aluminium Alloy	07340-02807	12.7	10.0	... 0 1 4
T-LOK®	–	**4.3**	Steel	07241-07101	12.7	10.0	... 1 2 1
	3/16	4.8	Steel	07241-07101	12.7	10.0	... 1 2 1
STAVEX®	1/8	3.2	Steel	07340-02806	9.5	11.4	... 0 0 8
	5/32	4.0	Steel	07340-02807	12.7	10.0	... 0 1 4
	3/16	4.8	Steel	07340-02807	12.7	10.0	... 0 1 4
	1/8	3.2	Stainless Steel	07340-02806	9.5	11.4	... 0 0 8
	5/32	4.0	Stainless Steel	07340-02807	12.7	10.0	... 0 1 4
	3/16	4.8	Stainless Steel	07340-02807	12.7	10.0	... 0 1 4
AVIBULB®	1/8	3.2	Steel	07340-02806	9.5	11.4	... 0 0 8
	5/32	4.0	Steel	07340-02807	12.7	10.0	... 0 1 4
E.T.R	–	**5.2**	Steel/Brass	07340-02807	12.7	10.0	... 0 1 4

[1] *In inches then in millimetres.*

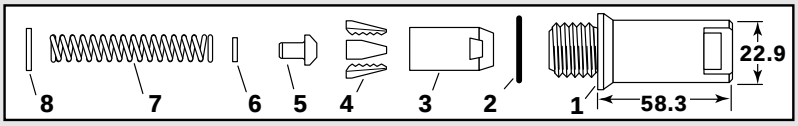
NOSE ASSEMBLY
part nº 71210-15200

ITEM	DESCRIPTION	PART Nº
1	NOSE CASING	07340-02804
2	'O' RING	07003-00067
3	JAW HOUSING	07340-00304
4	JAWS	71210-15001
5	JAW SPREADER	07498-04502
6	BUFFER	71210-05001
7	SPRING	07500-00418
8	LOCKING RING	07340-00327

TYPE 2 NOSE TIPS ARE EXTENDED TO ALLOW ACCESS INTO APPLICATIONS WHERE TYPE 1 NOSE TIPS WILL NOT REACH.



COMPLETE TOOL PART NUMBER : precede with 71210-00



TYPE 3 *NOSE TIPS*

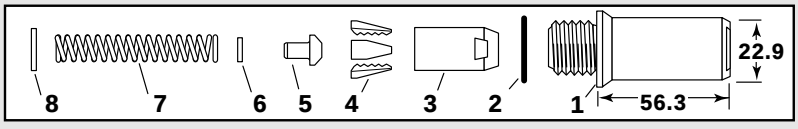
TYPE 3 NOSE TIPS ARE SPECIFICALLY FOR THE AEROSPACE FASTENERS LISTED BELOW.

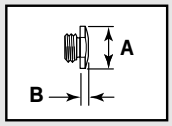
FASTENER NAME	Ø[1]		MATERIAL	NOSE TIP (mm) PART Nº	'A'	'B'	see below
AVDEL®	1/8	3.2	Al Alloy	71210-16030	12.7	2.5	... 2 8 3
	1/8	3.2	Al Alloy ***O***	71210-16031	12.7	2.5	... 2 8 4
	1/8	3.2	Stainless Steel	71210-16032	12.7	3.3	... 2 8 5
	5/32	4.0	Al Alloy	71210-16033	12.7	2.5	... 2 8 8
	5/32	4.0	Al Alloy ***O***	71210-16034	12.7	2.5	... 2 8 9
	5/32	4.0	Stainless Steel	71210-16035	12.7	3.3	... 2 9 0
	3/16	4.8	Al Alloy	71210-16036	12.7	2.5	... 2 9 3
	3/16	4.8	Al Alloy ***O***	71210-16037	12.7	2.5	... 2 9 4
MBC	1/8	3.2	Any	07340-06701	12.7	4.8	... 3 0 0
	5/32	4.0	Any	07340-06801	12.7	5.0	... 3 0 5
	3/16	4.8	Al Alloy	07340-06901	12.7	5.1	... 3 1 0
MBC L/C	1/8	3.2	Any	07344-04701	12.7	4.6	... 3 2 0
	5/32	4.0	Any	07344-04701	12.7	4.6	... 3 2 0
	3/16	4.8	Al Alloy	07344-04701	12.7	4.6	... 3 2 0

[1] *In inches then in millimetres.* ***O*** *Oversize*

NOSE ASSEMBLY
part nº 71210-15300

ITEM	DESCRIPTION	PART Nº
1	NOSE CASING	07344-02001
2	'O' RING	07003-00067
3	JAW HOUSING	07340-00304
4	JAWS	71210-15001
5	JAW SPREADER	07498-04502
6	BUFFER	71210-05001
7	SPRING	07500-00418
8	LOCKING RING	07340-00327





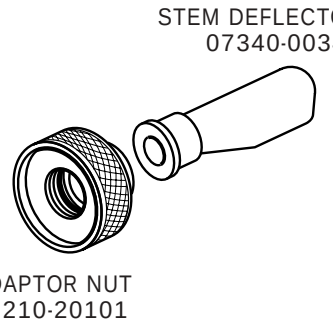
COMPLETE TOOL PART NUMBER : precede with 71210-00

Accessories

Stem Deflector

The stem deflector is a very simple alternative to the standard stem collector and allows access in restricted areas. To replace the stem collector with the stem deflector proceed as follows:

- Unscrew retaining nut **21** by inserting a 3 millimetre diameter rod into one of the holes.
- Remove retaining nut **21** and the stem collector assembly, items **15**, **16**, **17**, **18**, **19**, and **20**.
- Screw the adaptor nut onto end cap **22**.
- Push the boss end of the stem deflector into the internal groove of the adaptor nut.
- Rotate the stem deflector until the aperture faces away from the operator and other person(s) in the vicinity.

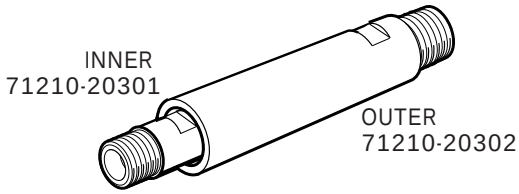


STEM DEFLECTOR: 71210-20100

Extension

Fitted between the tool and the nose assembly the extension allows access into deep channels.

- To fit the extension, remove any nose assembly components.
- Screw the inner extension to jaw spreader housing **1**.
- Screw the outer onto head assembly **4**.
- Fit the nose assembly onto the extension.



EXTENSION PART NUMBER: 71210-20300

Side Ejector

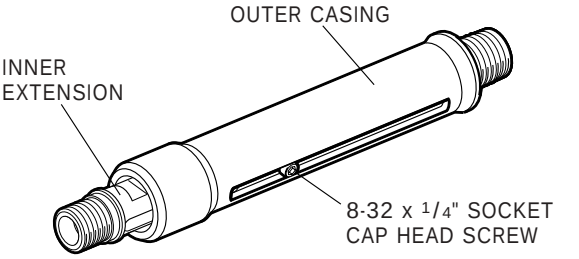
Fitted between the tool and the nose assembly, the side ejector forces fastener stems to eject at the front of the tool and reaches into deep channels.

It cannot be used in conjunction to a swivel head. Select the correct part number (below right) according to the stem diameter of the fastener.

For greater ease of use, it is recommended that the stem collector or deflector is replaced with safety cap part number 71210-20201 as used with swivel heads. See page 14 for fitting instructions, but note that the stop nut is not fitted in this case.

- To fit the side ejector, remove any nose assembly components.
- Remove the socket cap screw from the side ejector.
- Screw the inner extension onto jaw spreader housing **1**.
- Screw the outer casing onto head assembly **4**.
- Replace the socket cap screw securing with Loctite Screwlock 222, part number 07900-00371.
- Screw the nose assembly onto the side ejector.

Part number: 07498-00900
for fasteners with a stem larger than 3.1 mm (1/8") Ø



Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Accessories

Swivel Heads

Instead of a nose assembly, a swivel head can be fitted to a base tool. It allows 360° rotation of the tool about the nose tip and allows access into many applications otherwise too restrictive. There are two types of swivel heads: the straight swivel head with the nose tip slightly offset from the centre line of the tool head and the right-angle swivel head with the nose tip on a perpendicular axis to the head of the tool. See drawings below for dimensions and pages 14-15 for detail.

I M P O R T A N T

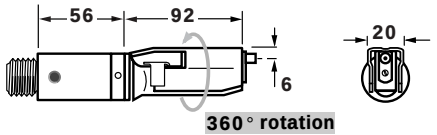
PRIOR to fitting a swivel head, the base tool must be adapted. See Preparing the base tool opposite.
In contrast to nose assemblies part numbers of swivel heads do INCLUDE a nose tip as shown below.

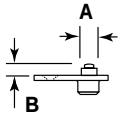
Swivel heads are supplied separately for fitting to a base tool forming a complete tool. See table below for part numbers. Jaws and nose tips vary depending on the fastener to be placed but all other components remain the same within each type of swivel head. See the 'capability' tables below and 'constant component table' page 15.

'A' and 'B' dimensions will help you assess the accessibility of your application.

STRAIGHT SWIVEL HEAD capability

NAME	FASTENER Ø[1]		MATERIAL	SWIVEL HEAD PART Nº	NOSE TIP (mm) PART Nº	'A'	'B'	JAWS PART Nº	see below
AVEX®	1/8	3.2	Al Alloy	07345-03000	07345-03600	7.87	3.81	07340-00213	... 0 0 1
	1/8	3.2	Steel	07345-03100	07345-03700	7.87	3.81	07340-00213	... 0 0 4
	5/32	4.0	Al Alloy	07345-03100	07345-03700	7.87	3.81	07340-00213	... 0 0 4
	5/32	4.0	Steel	07345-03200	07345-03800	7.87	3.81	07490-04602	... 0 1 0
	3/16	4.8	Al Alloy	07345-03200	07345-03800	7.87	3.81	07490-04602	... 0 1 0
BULBEX®	5/32	4.0	Al Alloy	07345-03100	07345-03700	7.87	3.81	07340-00213	... 0 0 4
	3/16	4.8	Al Alloy	07345-03200	07345-03800	7.87	3.81	07490-04602	... 0 1 0
AVINOX®	1/8	3.2	Stainless Steel	07345-03100	07345-03700	7.87	3.81	07340-00213	... 0 0 4
	5/32	4.0	Stainless Steel	07345-03200	07345-03800	7.87	3.81	07490-04602	... 0 1 0
AVSEAL®	–	4	Al Alloy	07494-06000	07494-06001	6.35	1.95	07340-00213	... 1 6 0
	–	4	Al Alloy	07494-06600	07494-06601[2]	6.35	4.11	07340-00213	... 1 8 0
	–	5	Al Alloy	07494-06100	07494-06101	7.62	2.00	07340-00213	... 1 6 1
	–	5	Al Alloy	07494-06700	07494-06701[2]	7.62	4.11	07340-00213	... 1 8 1
AVDEL®	1/8	3.2	Al Alloy	07345-03300	07345-03301	5.08	1.17	07340-00229	... 2 8 3
	1/8	3.2	Al Alloy ***O***	07494-03600	07494-03601	5.08	1.17	07340-00229	... 2 8 4
	1/8	3.2	Stainless Steel	07494-03000	07494-03011	5.08	3.81	07340-00213	... 2 8 5
	5/32	4.0	Al Alloy	07345-03400	07345-03401	6.6	0.84	07340-00229	... 2 8 8
	5/32	4.0	Al Alloy ***O***	07494-03700	07494-03701	6.6	0.84	07340-00229	... 2 8 9
	3/16	4.8	Al Alloy	07345-03500	07345-03501	8.13	0.25	07498-04401	... 2 9 3
	3/16	4.8	Al Alloy ***O***	07494-03800	07494-03801	8.13	0.25	07498-04401	... 2 9 4
MBC	1/8	3.2	Al Alloy	07345-04000	07165-00701	4.75	1.9	07340-00229	... 3 0 0
	5/32	4.0	Al Alloy	07345-04100	07165-00702	6.35	2.36	07340-00229	... 3 0 5
	3/16	4.8	Al Alloy	07345-04200	07165-00703	7.92	2.46	07498-04401	... 3 1 0
MBC L/C	1/8	3.2	Al Alloy	07345-04700	07345-04701	7.87	2.03	07340-00229	... 3 2 0
	5/32	4.0	Al Alloy	07345-04700	07345-04701	7.87	2.03	07340-00229	... 3 2 0
	5/32	4.0	Al Alloy ***O***	07345-04800	07345-04701	7.87	2.03	07498-04401	... 3 2 7
	3/16	4.8	Al Alloy	07345-04800	07345-04701	7.87	2.03	07498-04401	... 3 2 7





COMPLETE TOOL PART NUMBER :
precede with 71210-30
(the stop nut and safety cap are included)

IMPORTANT: by opposition to complete tools with nose assemblies, those fitted with swivel heads include the nose tip as a part of the head.

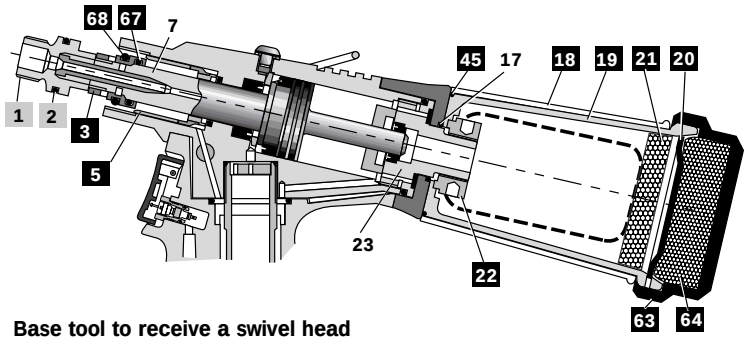
[1] *In inches then in millimetres.* [2] *Long nose tip for deep placing.* ***O*** *Oversize*

Preparing the Base Tool

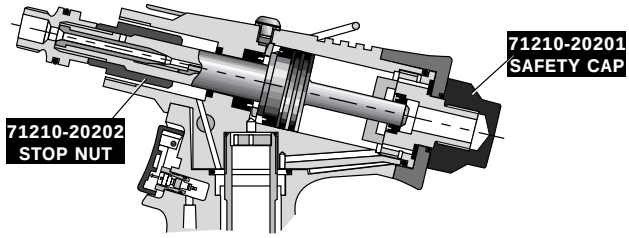
- Disconnect the air supply.
- Remove any nose assembly items.
- Remove retaining nut **22** and all elements of the stem collector (items **18**, **19**, **20**, **21**, **45**, **63**, **64**). Note that 'O' ring **17** remains.
- Replace the above with a safety cap as shown in drawing opposite.
- Unscrew jaw spreader housing **1** and remove with 'O' ring **2**, locknut **3**, 'O' rings **68** and **67**, and seal housing **5**.
- Screw stop nut 71210-20202 onto the front of head piston **7** as far as it will go by hand.
- Re-fit jaw spreader housing **1** and 'O' ring **2**.
- Unscrew the stop nut until it locks against jaw spreader housing **1** and tighten with spanner.

The tool is now ready to be fitted with a swivel head. Instructions are on page 14.

Base tool to receive a nose assembly

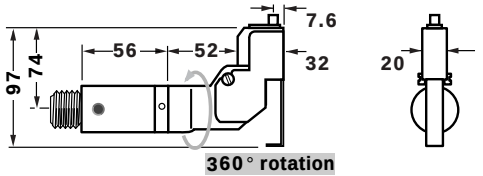


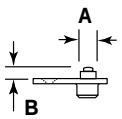
Base tool to receive a swivel head



RIGHT-ANGLE SWIVEL HEAD capability

FASTENER NAME	Ø[1]		MATERIAL	SWIVEL HEAD PART Nº	NOSE TIP (mm) PART Nº	'A'	'B'	JAWS PART Nº	see below
AVEX®	1/8	3.2	Al Alloy	07346-03000	07345-03600	7.87	3.81	07340-00213	... 001
	1/8	3.2	Steel	07346-03100	07345-03700	7.87	3.81	07340-00213	... 004
	5/32	4.0	Al Alloy	07346-03100	07345-03700	7.87	3.81	07340-00213	... 004
	5/32	4.0	Steel	07346-03200	07345-03800	7.87	3.81	07490-04602	... 010
	3/16	4.8	Al Alloy	07346-03200	07345-03800	7.87	3.81	07490-04602	... 010
BULBEX®	5/32	4.0	Al Alloy	07346-03100	07345-03700	7.87	3.81	07340-00213	... 004
	3/16	4.8	Al Alloy	07346-03200	07345-03800	7.87	3.81	07490-04602	... 010
AVINOX®	1/8	3.2	Stainless Steel	07346-03100	07345-03700	7.87	3.81	07340-00213	... 004
	5/32	4.0	Stainless Steel	07346-03200	07345-03800	7.87	3.81	07490-04602	... 010
AVSEAL®	–	4	Al Alloy	07495-04000	07494-06001	6.35	1.95	07340-00213	... 160
	–	4	Al Alloy	07495-04700	07494-06601[2]	6.35	4.11	07340-00213	... 180
	–	5	Al Alloy	07495-04100	07494-06101	7.62	2.00	07340-00213	... 161
	–	5	Al Alloy	07495-04800	07494-06701[2]	7.62	4.11	07340-00213	... 181
AVDEL®	1/8	3.2	Al Alloy	07346-03300	07345-03301	5.08	1.17	07340-00229	... 283
	1/8	3.2	Al Alloy ***O***	07495-03600	07494-03601	5.08	1.17	07340-00229	... 284
	1/8	3.2	Stainless Steel	07495-03000	07494-03011	5.08	3.81	07340-00213	... 285
	5/32	4.0	Al Alloy	07346-03400	07345-03401	6.6	0.84	07340-00229	... 288
	5/32	4.0	Al Alloy ***O***	07495-03700	07494-03701	6.6	0.84	07340-00229	... 289
	3/16	4.8	Al Alloy	07346-03500	07345-03501	8.13	0.25	07498-04401	... 293
	3/16	4.8	Al Alloy ***O***	07495-03800	07494-03801	8.13	0.25	07498-04401	... 294
MBC	1/8	3.2	Al Alloy	07346-04000	07165-00701	4.75	1.9	07340-00229	... 300
	5/32	4.0	Al Alloy	07346-04100	07165-00702	6.35	2.36	07340-00229	... 305
	3/16	4.8	Al Alloy	07346-04200	07165-00703	7.92	2.46	07498-04401	... 310
MBC L/C	1/8	3.2	Al Alloy	07346-04500	07345-04701	7.87	2.03	07340-00229	... 320
	5/32	4.0	Al Alloy	07346-04500	07345-04701	7.87	2.03	07340-00229	... 320
	5/32	4.0	Al Alloy ***O***	07346-04600	07345-04701	7.87	2.03	07498-04401	... 327
	3/16	4.8	Al Alloy	07346-04600	07345-04701	7.87	2.03	07498-04401	... 327





COMPLETE TOOL PART NUMBER :
precede with 71210-40
(the stop nut and safety cap are included)

IMPORTANT: by opposition to complete tools with nose assemblies, those fitted with swivel heads include the nose tip as a part of the head.

[1] *In inches then in millimetres.* [2] *Long nose tip for deep placing.* ***O*** *Oversize*

Accessories

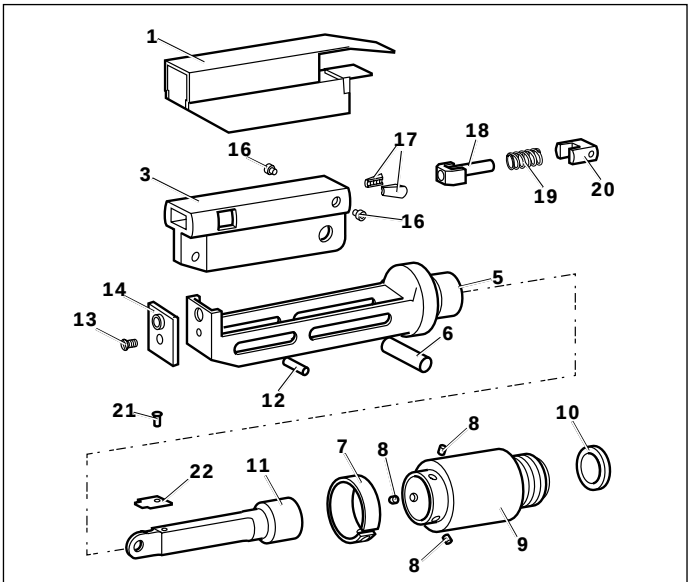
The fitting and servicing procedures for both types of head are almost identical. Differences are clearly indicated.

I M P O R T A N T

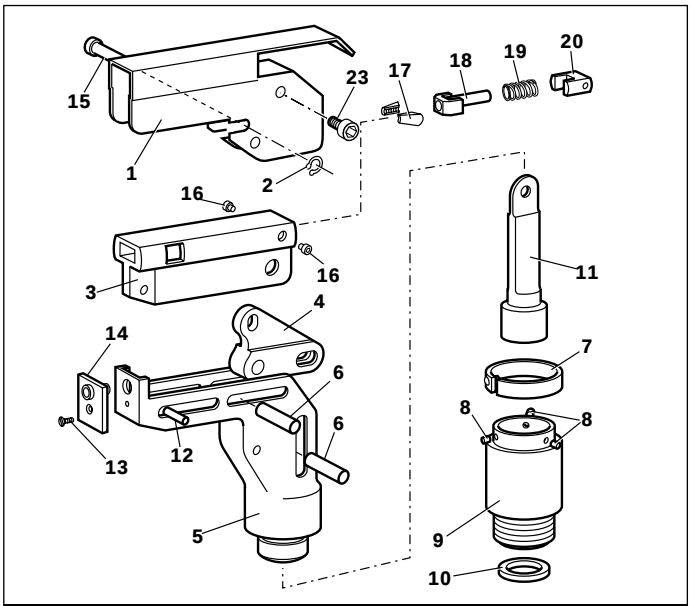
PRIOR to fitting a swivel head, the base tool must be adapted. See Preparing the base tool opposite.
The air supply must be disconnected when fitting or removing swivel heads.

Swivel Head Fitting Instructions

The following procedure will allow you to assemble and fit either of the swivel heads to the tool. If you order a complete swivel head rather than individual components, you will only need to start at stage **L**.
All moving parts should be lubricated. Unless stated otherwise use Moly lithium grease (details page 16).
When on grey tint, instructions refer only to the right-angle swivel head. Item numbers in **bold** refer to illustrations below.



STRAIGHT SWIVEL HEAD



RIGHT-ANGLE HEAD

A Fit locking ring **10** over jaw spreader housing **1**.

B Coat screw **13** with thread locking adhesive and use to secure nose tip **14** onto body **5**.

C Lightly lubricate items **17**, **18**, **19**, **20** and insert into jaw carrier **3** as shown. Secure with screws **16**.

D Position lever 4 into body 5 and hold in place with pin 15 through the hole of body 5 (not a slot).

E Lubricate the sides of the jaw carrier assembly and insert into body **5**.

F Lubricate rollers **8** and ENSURE that they will freely rotate in the holes of adaptor **9**. If necessary ream the holes.

G Position spring clip **7** over adaptor **9** past the holes for the rollers and rotate until the locating peg is aligned with the corresponding hole in adaptor **9** (smallest hole).

H Fit adaptor **9** over the end of body **5** and drop rollers **8** into place. Push spring clip **7** over rollers **8**.

I Insert spindle **11** through adaptor **9** into jaw carrier **3** until the hole lines up with slot in body **5**. Temporarily hold in place with pin **6**.

J Insert pin **12** through the front slot of body **5** into jaw carrier **3**.

K Hold the assembly vertical to prevent all pins dropping and slide the jaw carrier assembly back and forth a few times to ensure free movement. Go to **M**.

L Remove screws **23** (4 off) and guard **1**. On a straight swivel head also remove screw **21** and platform **22**.

M Push pin(s) **6** out and let spindle **11** drop out. Screw spindle **11** onto the jaw spreader housing of the tool, leaving the small screw fixing hole uppermost for straight swivel. Tighten gently with a tommy bar.

N Screw the assembly over spindle **11** onto the tool handle. Replace pin(s) **6**.

O On straight swivel heads attach platform **22** onto the top of the spindle with screw **21**. Deburr the back end of platform **22** so that it cannot catch on guard **1**.

P Snap guard **1** over the assembly, align screw holes in guard with tapped holes in body assembly.

Q Insert pivot pin 15 through slots in guard and hole in body. Fit circlip 2 onto pivot pin so that the circlip seats in groove provided.

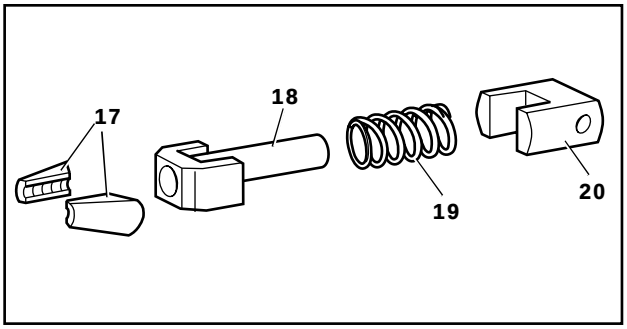
R Coat the thread of screws 23 (4 off) with thread locking adhesive and screw into body assembly securing guard to body assembly.

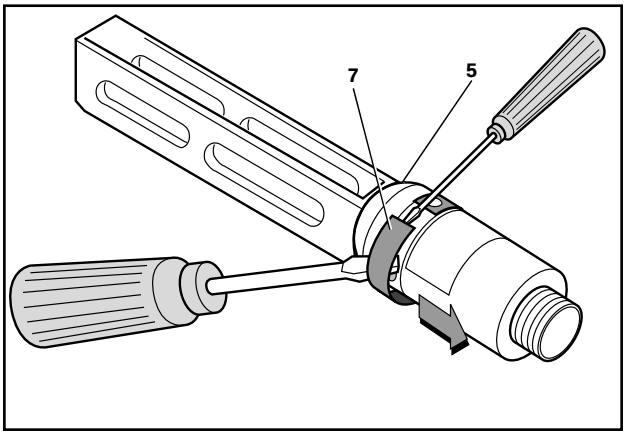
Accessories

Swivel Head Servicing Instructions

Swivel heads should be serviced at weekly intervals.

- Remove the complete head using the reverse procedure to the 'Fitting instructions' omitting step '**L**'.
- If guard **1** is at all damaged it must be replaced by a new one.
- Any worn or damaged parts should be replaced.
- Pay particular attention to jaw carrier items in the upper illustration opposite as follows:
  Check wear on jaws **17**.
  Check that jaw spreader tube **18** is not distorted.
  Check that spring **19** is neither broken or distorted.
  Check that spring guide **20** is not damaged.
- Check that spring clip **7** is not distorted. When removing spring clip **7**, use two screwdrivers as shown in the lower illustration opposite.
- Check for excessive wear on slots of body **5**.
- Assemble according to fitting instructions.





While nose tips and jaws will vary for each swivel head, other components remain constant within each type of head. See table below. For nose tips and jaws part numbers see pages 12-13.

CONSTANT COMPONENTS

	ITEM	STRAIGHT SWIVEL	RIGHT-ANGLE SWIVEL
1	GUARD	07494-05000	07495-03003
2	CIRCLIP	-	07004-00105
3	JAW CARRIER	07494-03026	07494-03026
4	LEVER	-	07495-03004
5	BODY	07494-03015	07495-03002
6	PIVOT PIN	07343-02207	07343-02207
7	SPRING CLIP	07495-03900	07495-03900
8	ROLLER	07007-00039	07007-00039
9	ADAPTOR	07345-03001	07345-03001
10	LOCKING RING	07345-03003	07345-03003
11	SPINDLE	07345-03002	07345-03002
12	DOWEL PIN	07007-00038	07007-00038
13	SCREW	07342-02207	07342-02207
15	PIVOT PIN	-	07343-02207
16	SCREW	07494-03028	07494-03028
18	JAW SPREADER	07346-03101	07346-03101
19	SPRING	07165-00305	07165-00305
20	SPRING GUIDE	07494-03027	07494-03027
21	SCREW	07001-00368	–
22	PLATFORM	07345-00401	–
23	SCREW	-	07210-00804

Servicing the Tool

I M P O R T A N T
Read Safety Instructions on page 4.
The employer is responsible for ensuring that tool maintenance instructions are given to the appropriate personnel.
The operator should not be involved in maintenance or repair of the tool unless properly trained.
The tool shall be examined regularly for damage and malfunction.

Daily

- Daily, before use or when first putting the tool into service, pour a few drops of clean, light lubricating oil into the air inlet of the tool if no lubricator is fitted on air supply. If the tool is in continuous use, the air hose should be disconnected from the main air supply and the tool lubricated every two to three hours.
- Check for air leaks. If damaged, hoses and couplings should be replaced.
- If there is no filter on the pressure regulator, bleed the air line to clear it of accumulated dirt or water before connecting the air hose to the tool. If there is a filter, drain it.
- Check that the nose assembly or swivel head is correct for the fastener to be placed.
- Check the stroke of the tool meets the minimum specification (page 5). The last step of the Priming Procedure on page 25 explains how to measure the stroke.
- Either a stem collector or a stem deflector must be fitted to the tool unless using a swivel head is fitted.
- Check that base cover **36** is fully tightened onto body **34**.
- Ensure that rotary valve **60** is correctly adjusted for fastener retention (see 'Operating Procedure' page 7).

Weekly

- Dismantle and clean the nose assembly with special attention to the jaws. Lubricate with Moly lithium grease before assembling.
- Check for oil leaks and air leaks in the air supply hose and fittings.

Moly Lithium Grease EP 3753 Safety Data

Grease can be ordered as a single item, the part number is shown in the service kit page 18.

First Aid

SKIN:

As the grease is completely water resistant it is best removed with an approved emulsifying skin cleaner.

INGESTION:

Ensure the individual drinks 30ml Milk of Magnesia, preferably in a cup of milk.

EYES:

Irritant but not harmful. Irrigate with water and seek medical attention.

Fire

FLASH POINT: Above 220°C.

Not classified as flammable.

Suitable extinguishing media: CO_2, Halon or water spray if applied by an experienced operator.

Environment

Scrape up for burning or disposal on approved site.

Handling

Use barrier cream or oil resistant gloves

Storage

Away from heat and oxidising agent.

Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Servicing the Tool

Molykote 55m Grease Safety Data

First Aid

SKIN:

Flush with water. Wipe off.

INGESTION:

No first aid should be needed.

EYES:

Flush with water.

Fire

FLASH POINT: Above 101.1°C. (closed cup)

Explosive Properties: No

Suitable Extinguishing Media: Carbon Dioxide Foam, Dry Powder or fine water spray.

Water can be used to cool fire exposed containers.

Environment

Do not allow large quantities to enter drains or surface waters.

Methods for cleaning up: Scrape up and place in suitable container fitted with a lid. The spilled product produces an extremely slippery surface.

Harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment. However, due to the physical form and water - insolubility of the product the bioavailability is negligible.

Handling

General ventilation is recommended. Avoid skin and eye contact.

Storage

Do not store with oxidizing agents. Keep container closed and store away from water or moisture.

Molykote 111 Grease Safety Data

First Aid

SKIN:

No first aid should be needed.

INGESTION:

No first aid should be needed.

EYES:

No first aid should be needed.

INHALATION:

No first aid should be needed.

Fire

FLASH POINT: Above 101.1°C. (closed cup)

Explosive Properties: No

Suitable Extinguishing Media: Carbon Dioxide Foam, Dry Powder or fine water spray.

Water can be used to cool fire exposed containers.

Environment

No adverse effects are predicted.

Handling

General ventilation is recommended. Avoid eye contact.

Storage

Do not store with oxidizing agents. Keep container closed and store away from water or moisture.

Servicing the Tool

Service kit

For an easy complete service, Textron Fastening Systems offers the complete service kit below.

SERVICE KIT : 71210-99990 Spanners are specified in inches and across flats unless otherwise stated

PART Nº	DESCRIPTION	PART Nº	DESCRIPTION
07900-00667	PISTON SLEEVE	07900-00164	CIRCLIP PLIERS
07900-00692	TRIGGER VALVE EXTRACTOR	07900-00008	$^{7}/_{16}$ x $^{1}/_{2}$ SPANNER
07900-00670	BULLET	07900-00012	$^{9}/_{16}$ x $^{5}/_{8}$ SPANNER
07900-00672	'T' SPANNER	07900-00015	$^{5}/_{8}$ x $^{11}/_{16}$ SPANNER
07900-00706	'T' SPANNER SPIGOT	07900-00686	PEG SPANNER
07900-00684	GUIDE TUBE	07900-00677	SEAL EXTRACTOR
07900-00685	INSERTION ROD	07900-00698	STOP NUT
07900-00351	3 MM ALLEN KEY	07900-00700	PRIMING PUMP
07900-00469	2.5 MM ALLEN KEY	07992-00020	GREASE - MOLY LITHIUM E.P.3753
07900-00158	2 MM PIN PUNCH	07992-00075	GREASE - MOLYKOTE 55M
		07900-00775	GREASE - MOLYKOTE 111

Servicing the Tool

Annually

(or every 500,000 cycles whichever is the soonest)

Annually or every 500,000 cycles the tool should be completely dismantled and new components should be used where worn, damaged or recommended. All 'O' rings and seals should be renewed and lubricated with Molykote 55m grease for pneumatic sealing or Molykote 111 for hydraulic sealing.

I M P O R T A N T

Read Safety Instructions on page 4.
The employer is responsible for ensuring that tool maintenance instructions are given to the appropriate personnel.
The operator should not be involved in maintenance or repair of the tool unless properly trained.
The tool shall be examined regularly for damage and malfunction.

The airline must be disconnected before any servicing or dismantling is attempted unless specifically instructed otherwise.

It is recommended that any dismantling operation be carried out in clean conditions.

Before proceeding with dismantling, empty the oil from the tool following the first three steps of the 'Priming Procedure' on page 25.

Prior to dismantling the tool it is necessary to remove the nose equipment. For instructions see the nose assemblies section, pages 8-10 or if a swivel head was fitted pages 12-15.

For a complete service of the tool, we advise that you proceed with dismantling of sub-assemblies in the order shown.

After any dismantling REMEMBER to prime the tool and to fit an appropriate nose assembly or swivel head.

Head Assembly

- Unscrew retaining nut **22** and pull off stem collector assembly, items **18**, **19**, **20**, **21**, **45**, **63**, **64** and 'O' ring **17**.
- Pull off stem collector adaptor **13**.
- Using the 'T' spanner* remove end cap **23** together with seal **15** 'O' ring **14** and lip seal **24**.
- Remove buffer **25**.
- Loosen locknut **3** with a spanner* then unscrew jaw spreader housing **1** and 'O' ring **2**.
- Remove locknut **3** together with 'O' rings **66** and **67**.
- Push head piston **7** to the rear and out of head assembly **4** taking care not to damage the cylinder bore.
- Using circlip pliers* remove seal retainer **26**. Push lip seal **8** to the rear and out of head assembly **4** taking care again not to damage the cylinder bore.
- Remove seal housing **5** and lip seal **6**.

Assemble in reverse order to dismantling noting the following points:

- Place lip seal **8** onto the insertion rod* ensuring correct orientation. Push the guide tube* into the head of the tool and push the insertion rod* with the seal into place through the guide tube*. Pull the insertion rod* out then the guide tube.
- The chamfered edge of retainer **26** must face forward with the gap at the bottom.
- After fitting seals **65**, **11** and **12** onto the piston ensuring correct orientation, lubricate the cylinder bore and place the piston sleeve* into the back of head assembly **4.** Slide the bullet* onto the threaded part of piston **7** and push the piston with the seals through the piston sleeve* as far as it will go. Slide the bullet* off the piston and remove the piston sleeve.
- Jaw spreader housing **1** must be fully tightened onto head piston **7** before tightening locknut **3** against it.
- Use Loctite 932 when reassembling Retaining Nut **22**.

* Item included in the G2 service kit. For complete list see page 18.
Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Servicing the Tool

Pneumatic Piston Assembly

- Remove 'ON/OFF' valve assembly **55**.
- Clamp the body of the inverted tool across the air inlet bosses in a vice fitted with soft jaws.
- Using the peg spanner* unscrew base cover **36** and pull out cylinder liner **41**.
- Remove pneumatic piston assembly **38** from body **34** together with 'O' ring **35**, lip seal **37** and guide ring **31**.
- Screw the seal extractor* into seal assembly **30** and pull it out of the intensifier tube of head assembly **4**.

Assemble in reverse order to dismantling.

Valve Spool Assembly

- Remove pneumatic piston assembly **38** and seal assembly **30** as described immediately above.
- Using the 'T' spanner* and 'T' spanner spigot* undo clamp nut **32** and remove it together with clamp plate **58**, transfer tube assembly **40** and valve rod **39**.
- Release the tool from the vice and separate body **34** with 'O' ring **27** from handle assembly **28**.
- Remove 'O' ring **29** from the intensifier tube and pull off head assembly **4** from handle assembly **28**.
- Push out valve seat **59** with both 'O' rings **66**.
- Pull out all the components of valve spool assembly **49**.
- Finally remove 'O' ring **54** out of the handle counterbore.

Assemble in reverse order noting the following points -
- Ensure that the central port in valve seat **59** faces upwards.
- Use Loctite 243 when reassembling Clamp Nut **32**, torque to 11ft lb (14.91 Nm).

Trigger

- Using the 2 millimetre diameter pin punch*, drive trigger pin **44** out and lift off trigger **43**.
- Unscrew trigger valve **42** using the trigger valve extractor*.

Assemble in reverse order to dismantling.

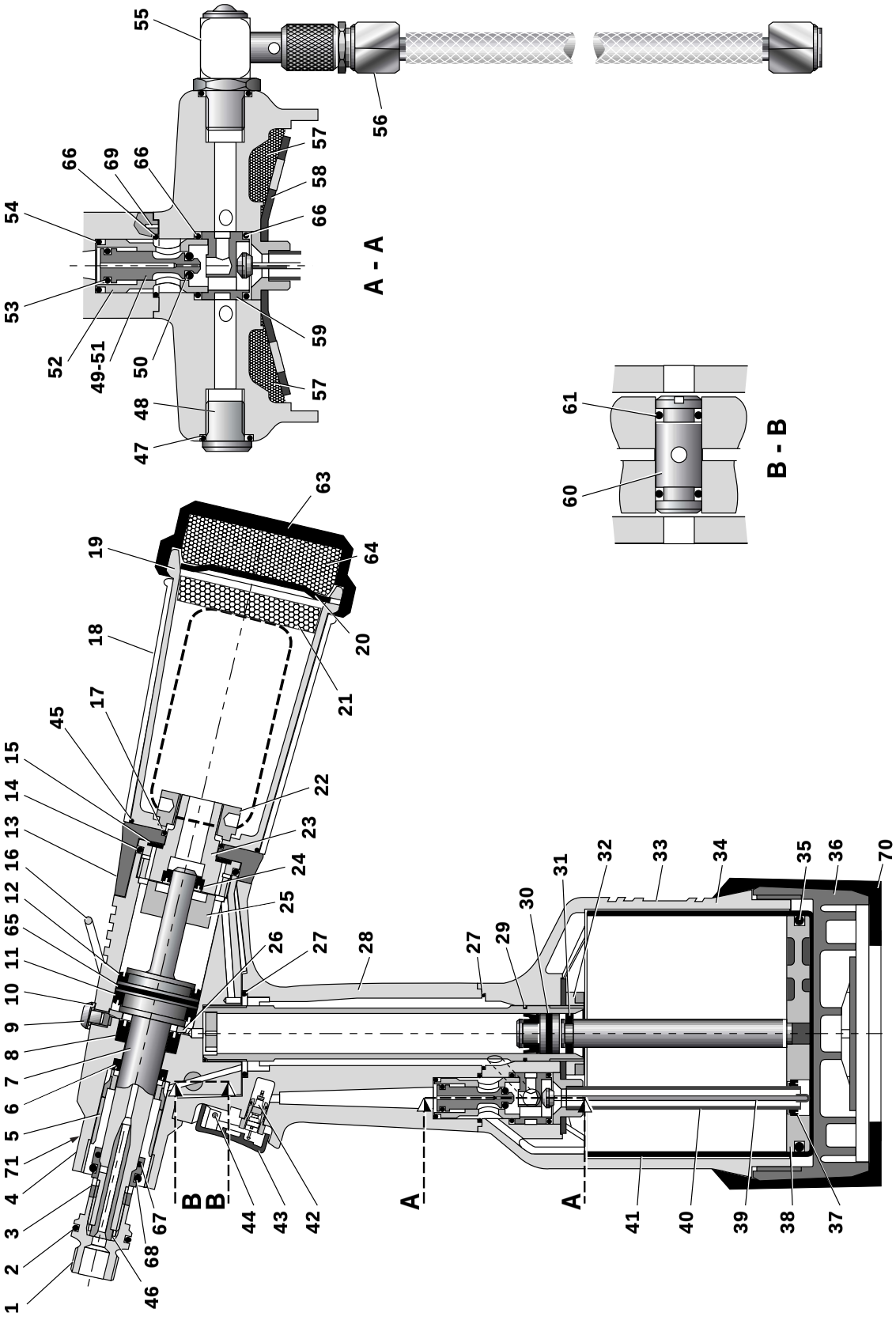
I M P O R T A N T

Check the tool against daily and weekly servicing.
Priming is ALWAYS necessary after the tool has been dismantled and prior to operating.

* Item included in the G2 service kit. For complete list see page 18.
Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Notes

General Assembly of Base Tool 71210-02000



71210-02000 PARTS LIST

* These are minimum recommended levels of spares based on regular servicing

ITEM	PART Nº	DESCRIPTION	QTY	SPARES	ITEM	PART Nº	DESCRIPTION	QTY	SPARES
01	71210-02101	JAW SPREADER HOUSING	1	-	36	71210-02006	BASE COVER	1	-
02	07003-00277	'O' RING	1	1	37	07003-00274	LIP SEAL	1	1
03	71210-02103	LOCKNUT	1	1	38	71210-03200	PNEUMATIC PISTON ASSEMBLY (INCLUDES 31/35/37)	1	-
04	71210-03320	HEAD ASSEMBLY	1	-	39	71210-03500	VALVE ROD ASSEMBLY	1	-
05	71210-02104	SEAL HOUSING	1	-	40	71210-03600	TRANSFER TUBE ASSEMBLY	1	-
06	07003-00333	LIP SEAL	1	1	41	71210-02012	CYLINDER LINER	1	-
07	71210-02121	HEAD PISTON	1	-	42	07005-00088	TRIGGER VALVE	1	-
08	07003-00273	LIP SEAL	1	1	43	71210-02008	TRIGGER	1	-
09	07001-00405	SCREW	1	1	44	71210-02024	TRIGGER PIN	1	-
10	07003-00194	SEAL	1	2	45	07003-00311	'O' RING	1	-
11	07003-00341	LIP SEAL	1	1	46	71210-02102	VACUUM SLEEVE	1	-
12	07003-00275	LIP SEAL	1	1	47	07003-00127	'O' RING	1	1
13	71210-02007	STEM COLLECTOR ADAPTOR	1	-	48	07005-01274	PLUG	1	-
14	07003-00278	'O' RING	1	1	49	71210-03400	VALVE SPOOL ASSEMBLY (50 to 53)	1	-
15	71210-02029	SEAL	1	1	50	07003-00268	• 'O' RING	1	2
16	71210-02022	SUSPENSION RING	1	-	51	71210-03402	• VALVE SPOOL	1	-
17	07003-00067	'O' RING	1	1	52	71210-03401	• VALVE BODY	1	-
18	07640-00239	STEM COLLECTOR OUTER #	1	-	53	07003-00042	• 'O' RING	1	2
19	71210-02051	STEM COLLECTOR BODY #	1	-	54	07003-00271	'O' RING	1	1
20	07340-00335	STEM COLLECTOR END CAP #	1	-	55	71210-03700	ON/OFF VALVE ASSEMBLY	1	-
21	07640-00244	SILENCER #	1	1	56	07008-00010	FLEXIBLE HOSE	1	-
22	71210-02028	RETAINING NUT	1	-	57	71210-02031	SILENCER	2	2
23	71210-02010	END CAP	1	-	58	71210-02021	CLAMP PLATE	1	-
24	07003-00274	LIP SEAL	1	1	59	71210-02009	VALVE SEAT	1	-
25	71220-02025	BUFFER	1	-	60	71210-02013	ROTARY VALVE	1	-
26	71210-02019	SEAL RETAINER	1	-	61	07003-00189	'O' RING	2	2
27	07003-00288	'O' RING	2	2	62	07900-00664	TOOL INSTRUCTION MANUAL	1	1
28	71210-04000	HANDLE ASSEMBLY	1	-	63	71210-02034	SILENCER CAP #	1	–
29	07003-00287	'O' RING	1	1	64	71210-02035	SILENCER #	1	1
30	71210-03800	SEAL ASSEMBLY	1	-	65	07003-00342	'O' RING	1	2
31	71210-03205	GUIDE RING	1	-	66	07003-00281	'O' RING	3	3
32	71210-02014	CLAMP NUT	1	1	67	07003-00204	'O' RING	1	1
33	71210-02027	LABEL	1	-	68	07003-00310	'O' RING	1	1
34	71210-02003	BODY	1		69	07007-00224	SPIROL PIN	2	-
35	07003-00280	'O' RING	1	1	70	71210-02055	RUBBER BOOT	1	-
					71	07007-01503	LABEL BOOK SYMBOL	1	-

 # These items are also available as a complete kit. Part Number 71210-20400.

Priming

Priming is ALWAYS necessary after the tool has been dismantled and prior to operating. It may also be necessary to restore the full stroke after considerable use, when the stroke may be reduced and fasteners are not fully placed by one operation of the trigger.

Oil Details

The recommended oil for priming is Hyspin VG32 available in 0.5l (part number 07992-00002) or one gallon containers (part number 07992-00006). Please see safety data below.

Hyspin VG 32 Oil Safety Data

First Aid

SKIN:

Wash thoroughly with soap and water as soon as possible. Casual contact requires no immediate attention. Short term contact requires no immediate attention.

INGESTION:

Seek medical attention immediately. DO NOT induce vomiting.

EYES:

Irrigate immediately with water for several minutes. Although NOT a primary irritant, minor irritation may occur following contact.

Fire

Flash point 232°C. Not classified as flammable.

Suitable extinguishing media: CO_2, dry powder, foam or water fog. DO NOT use water jets.

Environment

WASTE DISPOSAL: Through authorised contractor to a licensed site. May be incinerated. Used product may be sent for reclamation.

SPILLAGE: Prevent entry into drains, sewers and water courses. Soak up with absorbent material.

Handling

Wear eye protection, impervious gloves (e.g. of PVC) and a plastic apron. Use in well ventilated area.

Storage

No special precautions.

Priming Kit

To enable you to follow the priming procedure opposite, you will need to obtain a priming kit:

PRIMING KIT : 07900-00688

PART Nº	DESCRIPTION
07900-00351	3mm ALLEN KEY
07900-00698	STOP NUT
07900-00700	PRIMING PUMP
07900-00224	4mm ALLEN KEY
07900-00734	MAXLOK® STOP NUT

Priming

Priming Procedure

I M P O R T A N T

DISCONNECT THE TOOL FROM THE AIR SUPPLY OR SWITCH OFF AT VALVE 55.
REMOVE NOSE ASSEMBLY OR SWIVEL HEAD COMPONENTS.
All operations should be carried out on a clean bench, with clean hands in a clean area.
Ensure that the new oil is perfectly clean and free from air bubbles.
Care MUST be taken at all times, to ensure that no foreign matter enters the tool, or serious damage may result.

- Remove bleed screw **9** and seal **10**.
- Connect air supply to tool and switch ON/OFF valve **55** to 'ON" position.
- Invert tool over suitable container and actuate trigger. Waste oil will be ejected through the bleed screw hole.

CARE SHALL BE TAKEN TO ENSURE THAT THE BLEED HOLE IS NOT DIRECTED TOWARDS THE OPERATOR OR OTHER PERSONNEL.

- Screw stop nut 07900-00698 onto jaw spreader housing **1**.
- Disconnect air supply to tool or switch ON/OFF valve **55** to 'OFF" position.
- Fill the priming pump with oil.
- Screw priming pump 07900-00700 into the bleed screw hole with seal **10** in place.
- Actuate the priming pump by pressing down and releasing several times until resistance is felt.
- Remove the priming pump and the stop nut.
- Replace bleed screw **9** and seal **10**.
- Connect air supply to tool and switch ON/OFF valve **55** to 'ON" position.
- Check that the stroke of the tool meets the minimum specification of 17 millimetres. To check the stroke, measure the distance between the front face of jaw spreader housing **1** and the front face of the head, BEFORE pressing the trigger and when the trigger is fully actuated. The stroke is the difference between the two measurements. If it does not meet the minimum specification, repeat the priming procedure.

Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Fault Diagnosis

Symptom	Possible Cause	Remedy	Page Ref
More than one operation of the trigger needed to place fastener	Air leak	Tighten joints or replace components	
	Insufficient air pressure	Adjust air pressure to within specification	5
	Lack of lubrication	Lubricate tool at air inlet point	7
	Worn or broken jaws	Fit new jaws	8-10*
	Low oil level or air in oil	Prime tool	24-25
	Build up of dirt inside the nose assembly	Service nose assembly	9†
Tool will not grip stem of fastener	Worn or broken jaws	Fit new jaws	8-10*
	Build up of dirt inside the nose assembly	Service nose assembly	8-10*
	Loose jaw housing	Tighten against locking ring	8-10*
	Weak or broken spring in nose assembly	Fit new spring	8-10*
	Incorrect component in nose assembly	Identify and replace	8-10*
	Rotary valve incorrectly adjusted	Read 'Operating Procedure'	7
Jaws will not release broken stem of fastener	Build up of dirt inside the nose assembly	Service nose assembly	9†
	Jaw housing, nose tip or nose casing not properly seated	Tighten nose assembly	8-10
	Weak or broken spring in nose assembly	Fit new spring	8-10*
	Air or oil leak	Tighten joints or replace components	
	Low oil level or air present in oil	Prime tool	22-23
Cannot feed next fastener	Broken stems jammed inside tool	Empty stem collector	4
		Check jaw spreader is correct	8-10*
		Adjust air pressure to within specification	5
	Rotary valve incorrectly adjusted	Adjust as in 'Operating Procedure'	7
Slow cycle	Lack of lubrication	Lubricate tool at air inlet point	5
	Low air pressure	Adjust air pressure to within specification	5
	Build up of dirt inside the nose assembly	Service nose assembly	9†
Tool fails to operate	No air pressure	Connect and adjust to within specification	5
	Damaged trigger valve **41**	Replace	22-23
	Loose base cover **35**	Tighten	22-23
	Loose stem collector	Tighten retaining nut **21**	22-23
Fastener fails to break	Insufficient air pressure	Adjust air pressure to within specification	5
	Fastener outside tool capability	Use more powerful Genesis tool. Contact Textron Fastening Systems	
	Low oil level or air present in oil	Prime tool	24-25

* Pages 12-15 if a swivel head is used instead of a nose assembly.
† Page 15 if a swivel head is used instead of a nose assembly.
Item numbers in **bold** refer to the general assembly drawing and parts list on pages 22-23.

Other symptoms or failures should be reported to your local TFS authorised distributor or repair centre.

Declaration of Conformity

We, Textron Fastening Systems Limited, Mundells, Welwyn Garden City, Herts, AL7 1EZ
declare under our sole responsibility that the product:

Model G2

Serial No.

to which this declaration relates is in conformity with the following standards:

EN292 part 1 and part 2

ISO 8662 part 1	EN 60742/0695
ISO 3744	EN 50081-1
ISO EN792-13:2000	EN 55014

following the provisions of the Machine Directive 89/392/EC
(as amended by Directive 91/368/EC, 93/44/EC) and 93/68/EC

A R Dear - Design & Development Manager

Welwyn Garden City - date of issue

CE **This box contains a power tool which is in conformity with Machines Directive 89/392/EC. The 'Declaration of Conformity' is contained within.**

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